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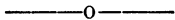
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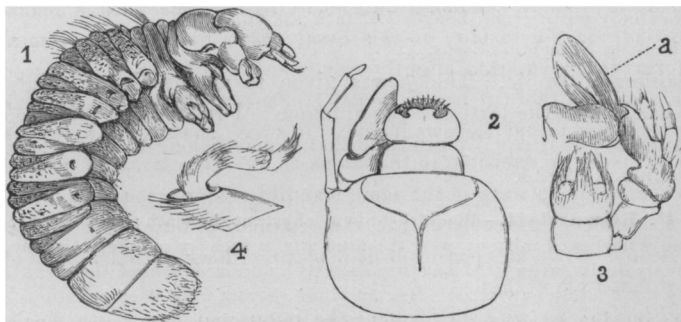
This species is recognizably described, though not properly named by Mr. Schaufuss (*Numquam otiosus*, vol. ii.). The name suggested for it by Mr. Crotch (*Check List*, p. 58), is likewise inadmissible, not only because he gives no reason for its adoption, and because that kind of list is an improper place for changes in nomenclature, but for the still stronger reason, that it tends to perpetuate in science the memory of the political venom which inspired the name given by Mr. Schaufuss. I cannot express myself too strongly on the necessity of keeping our scientific nomenclature free from all personal, political or religious prejudices or expressions of opinion. Such use of scientific publication, for intruding upon students of natural history irrelevant views respecting subjects; which are not comprised within the domain of their researches, must be discountenanced.



Description of the larva of **PLEOCOMA**, Lec.

BY BARON R. OSTEN SACKEN.

The larva, sent for examination, is fresh from a recent moult. Some parts of the head, especially the parts of the mouth, are still covered by the old skin; exuviae of the tracheal tubes protrude on both sides from the thoracic stigmata. I mention this in advance, in order to introduce a remarkable circumstance to be mentioned below.



Larva (fig. 1) of the usual lamellicornian type, fat, soft, whitish curved, about 50 millim. long.

Head (fig. 2) rounded, yellowish-red, with the usual inverted Y-shaped impression in the middle; the occiput is longitudinally wrinkled; the front, preceding the epistoma, shows irregular transverse wrinkles; the space between front and vertex, especially on the sides of the head,

is smooth and shining. The space transversely wrinkled bears some few bristles, more numerous on the sides. On the upper portion of the head I perceive six bristles, three disposed in a triangle, on each side of the Λ -shaped line.

Epistoma trapezoidal; *labrum* semicircular, its upper coriaceous covering trisinuated anteriorly, with two small projecting lobes between the lateral sinuses; the lower, fleshy part is armed, as usual with minute, stout, erect bristles. *Epistoma* and *labrum* reddish-brown.

Antennæ three-jointed (not counting the scapus), but little advancing beyond the tip of the mandible; first joint subcylindrical, long; the second cylindrical, about $\frac{2}{3}$ of the length of the first; the third very small, about $\frac{1}{4}$ of the length of the second and much more narrow.

Mandibles horny, very strong, dark brown or black, more reddish towards the basis, projecting but little beyond the labrum. When I first examined the larva, I found both mandibles looking alike, triangular, slightly curved towards the inside at tip, with a small tooth on the inside of the broad basis. I soon perceived however that the mandibles had not yet thrown off their old covering during the moult, and I easily removed from the left mandible, a horny shell, which after removal, preserved its former appearance. The mandible disclosed under it shows an altogether different structure, (compare fig. 3, a). It consists of a stout, reddish-brown horny basal piece, with a black, double tooth on the inside; on this basal part a black, horny, almost cultriform piece is inserted, slightly convex and longitudinally furrowed on the outside (the tip being smooth); concave and likewise with numerous longitudinal furrows inside. Between these two pieces the mandible shows an excision, in the shape of an angle of about 45° , of which there was no trace in the same mandible before moulting. The right mandible is probably of the same structure, but I did not remove its old skin; an opening in it however allows a partial view of the new mandible within.

Maxillæ (fig. 3) with two lobes; the outer and upper one small, cylindrical, with a few short spines and with a small conical, horny, piece at the tip, attached by an articulation; the inner and lower lobe is a little larger and beset with numerous spinelike bristles, and has, at the tip, a similar horny, but more unguiform, piece. *Maxillary pulpi* apparently 3-jointed (besides a small basal piece), projecting but little above the maxillæ; joints about equal in length.

The *palpigerous piece* of the labium (fig. 3) is a fleshy tubercle, beset with bristles; the mentum under it is not an independent piece, and merely marked off by folds around it. The palpi are horny cones, inserted upon scutiform basal pieces; their tip does not project much above the fleshy labium upon which they are inserted.

The *thoracic segments* are more glabrous than the others, being beset on the upper side with transverse rows of sparse, soft hairs; the third segment, besides its row of hairs, has a row of minute spines. The breast and pleurae also have some long, and rather soft hairs. The first segment shows, above the spiracle, on each side, a pale yellow region of indefinite outline, ending anteriorly in a reddish yellow spot; this evidently is a rudiment of the horny plate which exists here in other lamellicorn larvæ.

The *feet* (fig. 4) are somewhat shorter than the rather large coxæ, they are beset with spine-like bristles, and end in a pencil of such bristles, almost hiding the small unguis between them. The front pair of feet is perceptibly smaller than the other two and has only small coxæ. All the feet are far apart at their bases.

The abdomen, above, is densely beset with minute spines, rather evenly distributed over seven dorsal segments and not quite reaching the stigmata on both sides; the eighth segment is almost free from them; the ninth or last segment is beset with them on its posterior part only, round the anal opening. A row of soft hairs runs across each segment, from stigma to stigma. The venter has similar rows of hairs, becoming very sparse on the last segments.

The thoracic, as well as the abdominal segments, are divided by deep furrows in transverse bolsters, the longest of which bears the stigmata at its ends. The last abdominal segment is as long or a little longer than the two preceding taken together and is divided in two halves by a transverse furrow. The anal opening is Λ -shaped. The arrangement of the stigmata is the normal one.

When I compare this larva with the analytical table of the lamellicorn larvæ by Erichson, reproduced by Chapuis (*Larves des col.*, p. 454), I find that it has the two separate maxillary lobes attributed to the Scarabaeidæ *Laparosticti*; it has the segments divided by deep furrows into transverse bolsters, like the subdivision *A* in that table (*Geotrupidæ*, *Aphodiidæ*, *Copridæ*, *Trogidæ*). When I further compare our larva with the few existing descriptions of larvæ of these groups, I soon perceive that the choice will lie between the *Geotrupidæ* and *Trogidæ*. The *Aphodiidæ* and *Copridæ* are excluded by the struc-

ture of their antennæ, maxillæ, labium, etc. Of those two groups we possess, as far as I am aware, only two good descriptions of larvæ: Mulsant's of the larva of *Geotrupes stercorarius* and Chapuis' of the larva of *Trox carolinus*. If we were to base our opinion upon these two descriptions only, it would incline in favor of a relationship of our larva with the *Trogidæ*, rather than with the *Geotrupidæ*. Chapuis' description of the larva of *Trox carolinus* agrees quite well with our larva; the description of the labium especially (lèvre inférieure formée d'un menton et d'une pièce palpigère fondus en un real corps allongé) seems to indicate a structure somewhat analogous to that in our larva. On the contrary, Mulsant's description of the larva of *Geotrupes* disagrees with ours in several points. The antennæ are said to be four-jointed, the maxillæ to have two almost cylindrical lobes, the legs are described as bilobed at the end, etc. Finally, if it be true that the larva of *Geotrupes* has only two pairs of well developed legs, the third being almost atrophied, as Frisch (but not Mulsant) describes it, this would constitute another important difference.

Altogether, the materials at hand for comparison are too meagre for a final decision upon the relationship of the larva.

Before concluding I would advert once more to the singular fact that the shape of the mandibles changes after moulting. A similar peculiarity has been already observed among larvæ of other orders of insects. That the shape of the earlier mandibles is merely due to its being more worn is a supposition which will hardly be entertained by any one who has compared the two mandibles.

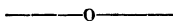
EXPLANATION OF THE FIGURES.

Fig. 1.—Larva from the side, natural size.

Fig. 2.—Head from above.

Fig. 3.—Labium, maxilla, and in front of them, the mandible *after moulting*.

Fig. 4.—Leg.



On the CUPESIDÆ of North America.

BY JOHN L. LECONTE, M. D.

PRIACMA, n. g.

Since I have seen the Australian genus *Omma*, I recognize in *Cupes serrata* (Lec. Proc. Acad. Nat. Sc. Phila., 1861, 351) a distinct genus, intermediate between that and *Cupes*. From the latter it differs by the antennæ less approximate at base, shorter and stouter,